MOSQUITO NOTES.—No. 2.

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Among the new genera lately separated by Theobald from *Ædes* and *Uranotœnia*, the differences seem at times puzzling, and without an opportunity to study the types, it is not always easy to feel sure of the position of a new insect. It is also to be noted that in some of these genera the male is unknown, and it may possibly happen that they belong to the class having long palpi in the male. This is very definitely suggested by a mosquito received recently from Bayamban, Pangasinan, P. I., which, while having long palpi in the male, flat scales (no curved ones) on the head, curved scales only on the scutellum, still has the wing characteristics of *Uranotœnia*. From most of the new genera it is cut off by the wing and the long palpus, but it evidently lies near Mimomyia, *if* Mimomyia belongs to the long-palpied group, the main differences being :

1st. The shape of the scales on the mesonotum, which in this insect are, so far as I can determine, simple slender curved scales; more slender than those on *Stegomyia fasciata*, Fabr., but showing no truncated ends.

2nd. Base of 1st submarginal is exterior to that of 2nd posterior.

3rd. Position of cross-veins, which in this insect are typical *Uranotœnia* veins.

Variability of cross-veins has, however, now become proverbial, and while the other differences constitute good specific values, they hardly seem, even considering the scale shapes on the mesonotum, sufficient to warrant creating a new genus, and I am therefore placing it, provisionally at least, under *Mimomyia*.

Mimomyia Çhamberlaini, n. sp.—Male: head light, heavily covered with light yellow, almost white iridescent flat scales, a few brown forked scales on the occiput extending well around to the sides; two large bristles projecting forward between the eyes, four or five around the eyes; antennæ brown, very plumose, light banded, basal joint bare, dark, verticels brown, but giving light (tow-coloured) reflections with a suggestion of orange; proboscis orange, tip black; palpi longer than the proboscis, mostly yellow-scaled ventrally, but partly brown-scaled dorsally, a dark band at the apex of the penultimate joint, and the ultimate joint clubbed (suggesting some of the *Anopheles*), and quite dark at the tip; clypeus yellow; eyes brown and silver.

Thorax: dorsum dark brown, heavily covered with dark brown slender curved hairs, laterally light, covered with light golden curved scales, forming a large spot over and around the wing joint, and running in a line cephalad on the edge of the mesonotum, light bristles over the wing joint; pleura and prothoracic lobes almost white; scutellum, dark brown median lobe, and light lateral lobes, both covered with dark brown slender curved scales, six large and a few small bristles on the mid-lobe, four bristles on the lateral lobes; metanotum dark brown.

Abdomen light, thickly covered with dark brown flat scales, having deep blue iridescence; very large basal lateral light spots forming an almost continuous lateral yellowish stripe, also continuous with the venter, which is very light yellow, almost white. All the segments heavily haired.

Legs: coxæ and trochanters all light. In the fore legs the femora are brown dorsally and ventrally light yellow, growing darker toward the apex, tibiæ brown (giving red-bronze and purple lights), metatarsi brown, with tiny light apical bands, tarsal joints brown, the first and second also with light apical bands. Ungues unequal, very large, one bi-serrate and the smaller almost straight. Mid-legs much as in fore legs; there are tiny light bands on the metatarsi, and first and second tarsal joints, and in some lights the whole metatarsus looks light. Ungues as in fore legs. Hind legs have femora brown, with red reflections, tibiæ brown, with light apical bands. There are also narrow apical bands on the metatarsi and first and second tarsal joints, the remainder of the hind legs is missing. In some cases the bands seem slightly to involve both joints, but in any case they are minute.

Wing light, and apparently partly denuded, but there are rather broadly truncated, sometimes slightly asymetric dark scales, with dark blue-green iridescence on costa, subcosta and 1st long vein and a few of the same "broad-ended" scales on the other veins; 1st submarginal cell is about one-third longer and a third narrower than the 2nd posterior, the base of the latter, however, being well interior to that of the 1st submarginal. Stem of 1st submarginal about one-third longer than the cell, and somewhat longer than that of the 2nd posterior. Mid cross-vein is about same length as supernumerary, which it meets, and posterior cross-vein is about one-fourth longer, and is distant from the mid about three-fourths of its own length. Halteres light, knob brown scaled. Length, 4.5 mm.

Habitat: Bayamban, Pangasinan, Luzon, Philippine Islands. Taken May 15.

Described from one specimen collected by Capt. W. P. Chamberlain, Asst. Surg., U. S. A., after whom it is named. In the same collection were *Culex microannulatus*, Theob.; *C. gelidus*, Theob.; *C. annulifera*, Ludlow; *Mansonia annulifera*, Theob.; *Myzomyia Ludlowi*, Theob.; *Myzomyia Thorntonii*, Ludlow; *Stegomyia scutellaris*, Walker; and *Myzomyia Rossii*, Giles, var. *indefinata*, n. v., Ludlow, an unusually large number of species for one collection.

As another instance of variation, I have received during the last year, from different parts of the P. I., specimens of a *Myzomyia* apparently new, yet lying so close to *Rossii* and *Ludlowi* that it has been difficult to be sure just where they belong. The differences hardly seem to be specific, and are, besides, most of them very unstable, and after much hesitation I have decided to publish it as a variety of *Rossii*.

Myzomyia Rossii, Giles, var. *indefinita*, n. v.—Female: Head brown, covered with white curved scales on the vertex, some large ones projecting forward as a white tuft between the eyes, white forked scales on the occiput, brown on the sides; antennæ brown, verticels and pubescence white, basal joint testaceous; palpi brown, last joint broadly white tipped, a narrow white band near it, and another dividing the remainder of the palpus in half (very like *Ludlowi*), basal part dark and quite heavily scaled; proboscis dark, tip light; eyes brown; clypeus brown.

Thorax gray and sparsely covered with slender hair-like curved white scales, and a few heavier ones projecting forward at the neck, a dark median line, widening just cephalad of the scutellum so as to form a small spot, narrow lateral ridges appearing as dark lines, running from the scutellum about half the length of the mesothorax; scutellum with hair-like white scales; metanotum brown; pleura gray, with brown spots almost forming bands.

Abdomen gray, densely covered with golden hairs.

Legs: coxæ and trochanters white, scaled with dark tips so as to form a light band at base of leg; femora all brown, a subapical yellow band on the fore femora, the tip dark; this marking sometimes occurs on the other legs and sometimes is wanting on all; tibiæ brown, with a narrow apical yellow band; metatarsi the same; tarsi on fore and mid-legs basally and apically banded except the last joint, which lacks the apical

band; ungues simple and equal. The metatarsi and tarsi on the hind legs have usually only minute apical bands, but occasionally the tarsal bands involve both joints.

Wings light, heavily covered with dark and light scales, forming on the costal portion spots as follows: Apex light, extending on tip of 1st long. and upper branch of 2nd long., then a short dark spot, which includes 1st long. and upper branch of 2nd long., followed by a light spot, about one-third longer than the dark, and extending also on 1st long.; second dark spot about as long as the preceding one, and extends on 1st long.; then a light spot followed by the third dark spot, which is much the longest of the dark spots, includes the sub-costa its full length, and extending on the 1st in the centre, suggests the "T" of *Rossii*; there is also at times a second dark spot on the 1st long. under this long one (like the marking in *Ludlowi*), and the relative lengths of all the costal spots vary so much that no measurements can be depended on. The fourth spot is shorter again, and extends on the sub-costa and 1st long. A couple of small indefinite dark spots on the costa only at the base of the wing. The wing field reminds one strongly of *Ludlowi*, and is fairly stable; 1st submarginal is slightly longer and about the same width as the 2nd posterior cell; bases nearly on a line, and the cells are noticeably longer than those in *Ludlowi*, in which this species resembles *Rossii*. Supernumerary cross-vein about half the length of the mid, which it meets, and posterior cross-vein is also about the same length, and about two and one-half times its length from the mid. Halteres light, knob fuscous. Fringe mottled, light at apex of cells. Length, 3.5 mm.

Habitat: Philippine Islands. Taken May (Bayamban), Sept. (Mangarin), Dec. (Guimaras Is.), etc.

This species occurs with *Ludlowi* at various places, and until Mr. Theobald called my attention to the differences I believed it to be *Rossii*, which it strongly resembles. The general colouring is, however, darker in this resembling *Ludlowi*, and its great variability makes it extremely hard to place definitely. Its relationship to these two species may be indicated as follows:

Wing venation like *Rossii*, and is constant. Palpal markings and general colour like *Ludlowi*, also constant. Femoral markings (when present) like *Rossii*, never like *Ludlowi*. Wing markings extremely variable, and may resemble either species. The balance seems to lie in favour of *Rossii*, and I have therefore referred it to that species.

In my "Mosquito Notes"* I referred to *Culex tæniorhyncus*, Wied., as not having been found, so far as I knew, north of Florida. The mistake was caused by my being so impressed with the statement (Theobald's Monograph, Vol. I., pp. 352, 353, 1901), "Mr. Coquillett writes me this species is not found north of Florida and Mexico," that I did not even consult American authorities. This statement is, of course, superseded by later work, and the species is found in the vicinity of Washington, D. C., in Pa., and in N. J., etc., as shown by various authorities, notably the interesting work on *C. tæniorhyncus* and *G. sollicitans*, by Dr. J. B. Smith, of N. J., to whom, as to others, my apology is due. This is another very variable species. Dr. Smith writes me that those he finds show much variation as to abdominal markings, but that the leg maculation is constant; those sent me from Florida and N. C., while fairly stable as to abdominal markings, are not constant as to the band on the proboscis, it being at times hardly more than a dot, while the last tarsal joint of the hind legs shows all variations from pure white to almost pure brown, the two legs on the same insect being often quite unlike. Mr. Coquillett tells me he also finds these differences in the specimens sent him.

NOTES ON SOME BEES IN THE BRITISH MUSEUM.

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Spending the summer in England, I have, of course, hastened to examine the types of F. Smith, and other bees contained in the collection of the British Museum. The following notes elucidate some species which had puzzled American entomologists, who had access only to the descriptions:

Chelostomoides rugifrons (Smith).

Chelostoma rugifrons, Sm., type ♀.—Would be large for *Chelostoma*; a transverse ridge, with large punctures, below the antennæ, and below this a smooth shining impunctate depressed area, bounded on each side by a vertical ridge, so that one gets the impression at first that the clypeus is very broadly and deeply emarginate; the long labrum, seen from above, looks like the end of an elephant's trunk, being broadened at the end, and presenting a median elevation; the "tooth near the base within" of the mandibles is a shining tubercle; the recurrent nervures join second submarginal cell at about equal distances from its base and apex respectively; the basal nervure just fails to reach transverso-medial; claws

*Canadian Entomologist. Aug., 1904, p. 236.